

ABSTRACT

An optical reagent format with a precise capillary channel is made by molding a format on a carrier of a precise predetermined thickness. The carrier includes an insert at least a portion of which is molded in the format. Once the format is made, the insert is detached from the carrier and removed from the format leaving a precisely dimensioned capillary channel with an inlet and vent. A reagent may be applied in the capillary channel and the format used to measure the analyte in a fluid such as blood.

An electrochemical sensor with a capillary channel is formed by placing a sacrificial insert and electrodes on a sensor base and applying plastic material. After the plastic material is cured, the sacrificial is removed leaving a capillary channel in the sensor. The inserts may be removed by a tool including a clamp for clamping and holding each insert stationary and a sliding block to which the sensor is secured.